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COMMENT COVER

In The Matter of	)	
A Proposal For A	)	
Microstation Radio	)	**RM 9208**
Broadcast Service	)	
Comments Of:	)	
Mr. Ronnie V. Miller	)	
17841 South St. Hwy. 123	)	
Seguin, Texas 78155-0851	)	

I file these comments on April 13, 1998 in the matter of RM 9208, a proposal for a microstation radio broadcast service.

SUMMARY

I am in favor of the creation of some type of low power broadcast service, (particularly in small communities) but have suggestions for ways to simplify the proposal under consideration. A service of this type can exist in harmony with full power licensed broadcast stations, and can be implemented with much less need for FCC man-hours than is suggested by the proposal. Utilization of the services of the Society of Broadcast Engineers (SBE) for technical support, and relatively simple changes to Part 15 of current FCC rules should be considered. Details to follow.

Outline Of Comments

A. My background and reason for interest in RM 9208.

B. General comments on the proposal.

C. New ideas on the need.

D. Technical requirements and FCC involvement.

   1. Part 15 vs. new rules.

   2. Use of SBE personnel to reduce FCC workload.

E. Impact on existing broadcasters.

   1. Non-commercial status preferable.

F. Precedents for a low power broadcast service.

   1. In the USA.

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G. Other Issues.

   1. Frequencies for Microstation use.

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   3. Impact on the Emergency Alert System.

   4. Would there be another "CB - like" problem?

   5. Benefit vs. Risk

H. Supplemental Information (Enclosures)

Background:

I am fifty-four years old, and for a number of years was involved with broadcasting although most of my working life has been as an employee of Motorola. Through careful planning I was able to achieve my goal of early retirement, and now have time to pursue personal interests. I am considering re-entering broadcast radio in some form or fashion because it gave me such satisfaction when I was involved early in my life.

For some time I have seen the need for some type of low cost limited radio broadcast service for small communities. To this end I began research back in 1995 to determine the feasibility of such a service using only the AM broadcast band, but I never completed the project. Since my work was somewhat similar to the proposal you are now considering, I am including a copy of it as an attachment to these comments, in the hope that it will be of use to you in making your decision in this matter.

General Comments on the Proposal:

In order to justify any type of low cost, low power radio broadcast service it would have to meet three basic requirements:

1. It must fill a need that is not currently being met, and cannot be met in some other more practical way.

2. It must not create large amounts of new workload for the FCC (federal budget constraints may not allow this).

3. It must be structured so that it does not impact the financial well-being of full service broadcasters.

I will now comment on the proposal being considered with respect to each of these issues.

Need for a Micro-broadcast Radio Service:

As explained in the proposal, it is very true that microstations would fill a need that is not (and probably never will be) met by existing broadcasting stations. The comments in the proposal amply express how these stations would be useful in urban areas. I would like to emphasize the usefulness of such stations **away from large cities.** For many years I have noticed that small communities in Texas that are not located near the large population centers have virtually no local radio service. There is a very clear reason for this. It is simply not economically feasible to build and operate a radio station in these communities, given the present technical and financial resources necessary to do so. It is not that local radio would not be a valuable tool for the people living in these isolated areas. The problem is that it simply costs too much to make it practical. These small communities, each with their separate small and isolated economies, could greatly benefit from something like the proposed microstations. (More detail is included in the attachments to these comments).

Technical Requirements and Burden on FCC Resources:

Consider Part 15 vs. New Detailed Rules

I feel that the existence of a microstation radio service would not require nearly as much involvement from the FCC as is suggested in the proposal being considered. Rather than establishing a new set of rules specifically intended to license and regulate microstations, consider a simple modification of Part 15 of the existing FCC regulations to allow a higher field strength limit on the AM and FM broadcast bands, with specific limits on signal purity for stations operating under this section. The new limits can be set such that coverage will be equivalent to the 1 watt output and 50 foot antenna limits in the original proposal. Part 15 was expanded successfully a few years ago to allow many new and innovative uses for low power radio devices and products. Through my work at Motorola I witnessed implementation of many new devices involving RF energy made possible by these simple changes to Part 15.

Part 15 seems ideally suited for regulation of a microstation broadcast service because:

- It already clearly defines responsibility for interference.
- It would preclude the need for a whole new set of rules and regulations intended to specifically regulate a new radio broadcast service.

- It would eliminate involvement of the FCC in regulation of the **material broadcast over a microstation** (FCC involvement only in simple technical requirements). Any other matters, such as legal concerns with material broadcast, obscenity, ASCAP and BMI rules, etc. would involve only the operator of the station and the other party(s) concerned.

In line with the FCC's policy of moving more and more toward de-regulation, a "One-Watt" microstation service can exist very simply without the need for heavy regulation.

Use the SBE

FCC workload could be minimized in other ways as well. To address concerns about interference with existing full power broadcasting stations (and out-of-band spurious signals) the services of a member of the nearest branch of the Society of Broadcast Engineers (SBE) can be utilized. There is a precedent for this in that the SBE has been gradually assuming more and more of the routine broadcast field inspection duties previously performed by the FCC. A clause in the modified Part 15 could require a certified SBE Engineer (or other FCC licensed technician) to complete a report verifying that:

1. The AM or FM frequency chosen for the microstation will not cause harmful interference to any first or second adjacent channel.

2. The microstations' RF signal strength and purity meets the requirements of the new section of Part 15.

A microstation would be required to have a copy of this certification in it's possession, and a copy would be sent to the FCC. This way the FCC could keep track of the location and number of microstations in existence. (A reasonable fee would be charged by the SBE Engineer for completing this report, as is currently done in the "Alternative FCC Inspection Program" with full service broadcast station inspections.)

Impact On Existing Full-Service Licensed Broadcasters:

Non-Commercial status preferred

If microstations are allowed to compete with full power broadcasters for revenue, the original intent of setting up these stations is likely to get lost in an effort to turn them into "money machines". In the cases where microstations are located within the primary coverage area of one or more full service broadcasters, they would in fact be unfair (and unnecessary) competition. In order to meet the needs for microstations as described in the original proposal, the need for revenue from paid advertising seems unnecessary. The stations will no doubt be set up and manned by volunteer staffs. In fact, limiting microstations to non-commercial status will help insure that they attract only those interested in operating them with the goals described in the original proposal. I would have no

objection to volunteer financial contribution to a station however.

Further, eliminating the for-profit possibility should reduce the concern that large corporations might attempt to build microstations for some ulterior motive. It is true that the potentially positive results of a microstation broadcast service could easily be negated if the stations were built and operated with some type of financial goal in mind. To insure optimum benefit from a microstation service, a clear distinction should always be maintained between it and commercial radio.

Precedent for a Low Power Broadcast Service:

In the USA

The FCC has already taken some steps in the direction of some forms of low power broadcasting:

- The establishment of the Traffic Information Service / Highway Advisory Radio service (TIS/HAR) on 530Khz and 1610Khz some fifteen years ago.
- Modifying TIS/HAR regulations to allow use of other frequencies within the AM band sometime around 1995.
- In a few special cases the FCC has issued temporary authorization for operation of low power broadcast stations at special events (such as the Republican National Convention in California a few years ago).

Success in Other Countries

There are also examples in other countries of successful low power broadcast services:

- Canadian citizens have been able to establish low power broadcast stations for a number of years. To the best of my knowledge this has not resulted in any major regulatory problems, or cases of interference.
- Japan has experimented with low power FM authorization.
- England established a Restricted Service license (RSL) with positive results.

In each of the above examples there has not been an overwhelming request for licenses in these services, that required usurping large amounts of the regulatory agency's resources for long periods of time.

Other Issues:

Frequencies for Microstation Use

In the proposal under consideration one common AM and one common FM frequency for microcasting is suggested. This is impractical because of the impact on existing stations, and the large amount of work required by the FCC. As suggested earlier, the SBE can be used to help find acceptable frequencies for microstation use without any impact on existing broadcasters, and the staff at the FCC.

Operating Hours for Microstations

The proposal also suggests microstations be required to broadcast a minimum number of hours a year. I feel there should be no such attempt to regulate them in this way. Each station can best judge it's usefulness in terms of operating time. In some remote areas an hour or two a day may fulfill all the need. A regulation here would probably result in poor programming quality, and less creativity.

Emergency Alert System (EAS) requirements

Full service licensed broadcast stations are currently working out problems with the new Emergency Alert System. It occurs that compliance with these requirements by microstations might be an issue. I feel that this should not be a concern. When operating in large metropolitan areas, microstations are not intended to provide the same services as licensed full power stations. In the case of microstations serving small isolated communities, the operator could monitor the nearest high power station and take whatever action seems appropriate for the particular situation (pass on information, or shut down after advising listeners where to tune). Of course, voluntary compliance would be acceptable.

Another "CB - like" problem

It is my perception that there may be a concern within the FCC that a microstation broadcasting service might result in a "CB - like" situation within the broadcast bands. In response to that perceived concern, I would like

to offer these thoughts. CB radio was the first time the public at large was allowed access to a simple low cost two-way radio system. Interest was enormous. There were no cellular telephones, and no internet. It was a different time. In light of today's technological advances (when even full service broadcast stations are finding the public interest in radio broadcasting waning) it seems highly unlikely that a low power radio broadcast service would receive anywhere near the interest of the CB radio phenomena. Rather more likely, setting up a microstation would be attractive only to those with a genuine interest in providing the intended services, and those who have a true interest in radio broadcasting. These are the individuals that could become the backbone of radio in the future. I can think of no better way for the public at large to benefit but to attract these people and let them experiment, as the proposal suggests.

Benefit vs. Risk

Many would agree that the radio broadcasting industry today is suffering from lack of new and innovative ideas. AM stereo and "AMAX" were disappointments. Most program formats today have existed for many years and are all very predictable. All change involves some risk, and rarely is change totally positive. Change often involves compromise. I believe that through compromise, the interests of existing broadcast stations can be protected at the same time a new way to use radio to benefit the public interest is

initiated. In my opinion, the benefits of establishing **some type** of microstation service (especially in the widely spaced small communities in Texas and elsewhere) far outweigh any risks. The radio broadcasting industry, as well as all citizens will in the long run be the beneficiaries of this type of change. The Commission should not let any perceived fears, or "near-sightedness" prevent it from opening another door to the future as we near the year 2000.

I wish to thank the Commission for the opportunity to provide my input and ideas on this subject. The Commissions policy of allowing and considering comments from individual citizens is a privilege which I value highly.

Respectfully,

Ronnie V. Miller

Ronnie V. Miller

enclosures:

1. Synopsis - Isolated Community Low Power AM Proposal
2. Research Survey - LPAM proposal (Non Technical)
3. Research Survey - LPAM proposal

SYNOPSIS - ISOLATED COMMUNITY LOW POWER AM PROPOSAL

March 1995
Ronnie V. Miller
Seguin, Texas

The following paper describes a new radio service to operate in the present AM Radio Broadcast band. This service would be low power, with greatly simplified technical requirements. The purpose of this service is not to compete any way with any existing Broadcasting service or station, but rather to utilize the AM band to fill a need that is not presently being met.

THE NEED

For many years I have noticed that small communities in Texas that are not located near the large population centers have virtually no local radio service. There is a very clear reason for this. It is simply not economically feasible to build and operate even a "Local-Channel" (250 Watt) station in these communities, given the present technical and financial resources necessary to do so. It is not that radio would not provide a valuable local tie between the people living in these isolated areas. The problem is that it simply cost too much to do it.

I have often thought how these many hundreds of small communities, with their separate and isolated economies, could benefit from some type of localized radio service. In discussing this with people that live in some of the small towns between San Antonio and Houston, Texas I have found interest in the idea. If it could be made economically (and technically) feasible, there would be people interested in providing this type of service. It seems to me that it could be very simple to meet these requirements. Let me explain.

THE SOLUTION

I propose the creation of a new service to operate in the present AM frequency band. The service would be low power, with greatly simplified technical requirements.

In communities far removed from the large population centers there are <u>many</u> frequencies across the AM Broadcast Band that are totally quiet during the daylight hours. These frequencies would be used for operation of simple low power broadcasting stations as described below.

RANGE

Stations in this service are intended to cover only small communities. The stations would use simple "short stick" (electrically loaded) antennas which would be erected on existing buildings or other structures. Transmitter power would be typically 25 - 50 watts; no more than that.

There is some president for this type of service. Many existing AM stations operate with "pre-dawn" or "post-sunset" low power authority now. Although operating into full sized antennas, they sometimes operate with power levels below 25 watts. They provide a quite acceptable signal over a short distance. Further, there are the Traffic Information / Highway Advisory Stations. During daylight hours (no sky wave interference) these stations usually are audible on a car radio for several miles. This new service would be very similar to these other uses of the AM band which are already in place.

Let me explain further. During daylight hours in communities far removed from cities there are <u>many</u> frequencies across the AM dial that are completely quiet. A 25 or 50 watt signal, with a very simple antenna, would cover these small towns with ease using one of these blank frequencies during the daytime. The stations would sign off at night, since there would be little interest in them anyway during peak television viewing time. This eliminates the concern of causing increased sky-wave interference to existing stations.

TECHNICAL & FINANCIAL REQUIREMENTS

<u>The FCC:</u>

There would be practically no new burden on the FCC to regulate the service. The service is intended to operate much as the Traffic Information / Highway Advisory Service stations operate. The amount of FCC evolvement is limited to setting up a clause in the regulations to establish the service, and to issue the license. FCC technical requirements for these stations would be limited to type-acceptance of the transmitter. (A company already exists to supply this need - LPB.)

Any regulatory matters could be handled by the local branch of the Society of Broadcast Engineers (SBE). This organization has been gradually assuming more and more of the functions that the FCC used to be responsible for. Federal budget constraints now require the resources of the FCC to be focused on more current and pressing matters than the day-to-day issues of interference and routine policing of broadcasting stations.

The frequency selection could be done by the local branch of the SBE. There is a president established for this in that the SBE already acts as a frequency co-ordinator concerning STL frequencies, and other temporary types of VHF/UHF assignments. The SBE already manages many of the day-to-day issues that, many years ago, required the personal attention of the FCC. There is no need to require detailed frequency searches, theoretical field strength studies, etc. since the operation will use unoccupied frequencies

for only short distances during daylight hours only.

There would be no required minimum RMS field intensities within the service area. Experiments conducted by myself and other Amateur Radio Operators using AM stations of this general description operating on the 160 Meter Amateur frequency band (1800 KHZ - 2000 KHZ) and using a modified car radio as a mobile receiver have shown reception quality to be indistinguishable from a full service station for the first two or three miles. After five to 7 miles the signal gets a little noisy. Then after about 10 miles the signal fades down to where is should be, since the audience for these daytime stations will not extend any further than this. All things considered, the service range is more than adequate for such a simple service.

All other station equipment can be very simple and low cost. Microphones, mixers, audio sources, etc, could be as simple as the equipment available at any local Radio Shack Store, for example. The performance of most of this consumer oriented electronic equipment is, for all practical purposes, equal to that of much more expensive equipment designed specifically for broadcast use. It is perfectible acceptable for use here.

Capital Requirements:

Since a full size vertical tower is not allowed in this service, there is no need for a large outlay of capital for land, environmental impact studies, tower lighting and painting requirements, etc. Eliminating this removes one of the major financial restrictions, and helps make the idea financially realistic.

The stations are intended to be very simple installations; in most cases, probably in one room of an existing structure.

The reason some existing AM stations are going dark today is because the cost for the land, buildings, taxes, overhead, is simply too much to be supported by the small local economy. It is not because there isn't a need, or desire to serve the community. The need is still there; we just need to adapt the requirements to fill the need, to the existing economic situation !

The total cost of installing a station like this in an existing building (such as the local newspaper, or possibly a bank) could be as low as 10 to 20K or possibly less. This is well within the range that would attract many to consider providing such a local service.

IMPACT ON EXISTING FULL-SERVICE BROADCASTERS

There would be no increased interference to any existing AM Stations. The stations would operate only in the daytime, and on frequencies totally clear of any existing ground-wave signal. They would sign off at night, hence no increased sky-wave noise for Full-Service AM stations. (There would be a provision that in the event of an unusual situation, such as a severe weather emergency, the stations could broadcast at night, but only on these special occasions. This type of temporary authority is already extended to full service stations when they are allowed to operate during

emergencies with full power and/or non-directional operation at night.)

There would be no loss of target audiences of full service stations. This new service is intended to cover small isolated communities which are not the primary target audiences of any existing station. If a community already has a full-service station, it would not be eligible to have a station in this service.

SERVICE PROVIDED

These small stations should be allowed to operate as any other station; that is, run local advertising, local bulletin boards, call-in talk shows, programs of music, coverage of local news, school activities, and anything else which might be of interest to the isolated community. In other words, they are "miniature broadcasting stations" providing a service to these isolated groups of people.

There is to be no minimum operating hours. In some communities a station might only be on the air for a couple of hours a day, if that is all that is deemed necessary. If the local community finds the service of great value, operating hours could be expanded to full daytime operation.

There might be an afternoon program of music of the type enjoyed by the local people, which is not available on signals from the large population centers which penetrate the area. Here in South-Central Texas a good example of this is the lack of music enjoyed by the German populations of many small communities. None of the stations from San Antonio, Austin, or Houston can program this type of special-interest programming for obvious reasons.

A station might provide a "community party line" call-in talk program, where local people can get together for a gossip session on the radio. Talk radio for the little people, if you will.

Many of these communities have local activities, Club meetings, local dances, high school events, etc. which could be covered by such stations. The stations could involve high school students on a voluntary (or paid) basis to act as part time operators, news gathering personnel, DJ's etc. This type of activity helps fill a local need and provides young people with valuable experience in getting involved with their community, and in some cases helps to focus career interests.

LIMITATIONS

I would like to suggest one restriction in this proposal. Ownership of the stations should be restricted to an individual or a local business in the area being served. This assures the stations would be operated with local interests in mind. If they were open to ownership by corporations or individuals outside the areas being served it might become a monopoly of a few individuals, or simply a tax deduction. Further, the service would allow only

one station per community. This is all that would be required to meet the need that this service is intended to fill.

-- END --

RESEARCH SURVEY - LPAM PROPOSAL
(Non Technical version)

The information gathered by this survey will be used in deciding if it is worth while to proceed with the accompanying proposal. Please study the proposal and then provide feedback using this survey questionnaire. Thank you for your time, and consideration. Your input is very much appreciated.

1. When do you listen to radio:
(mark all that apply: 1=most often, 2=second most often, etc)
Weekday mornings, while driving_____
Weekdays at home or in a place of business_____
Weekends, at home_____
Weekends, while driving_____

2. What type of entertainment or information do you want from radio (check all that apply) ?
(examples: music - country & western_____
music - (type)_____
national news_____
talk shows_____
local information about my area or town._____
no station has what I like._____

other:_____

3. When you listen to radio, what station do you listen to most often? (call letters, town, or name station uses)_____

_____

4. Would you be opposed, or in favor of the establishment of the new service described in the proposal?_____

5. Do you view this new service as competition for existing broadcasters in large cities such as Austin, San Antonio, Houston, etc?_____

6. Do you personally know of a town or area in Texas where a station in this new service would be useful?_____

7. Do you know of someone personally who you think might be interested in setting up a station in this service, were it to be authorized?_____

8. If such a service were to be authorized by the FCC, and if you met the criteria, would you consider establishing such a station yourself?

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9. Have you ever thought about anything similar to this idea, before you read this proposal?_____

10. What (General or Specific) suggestions or changes would you make to the proposal?_____

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11. If you are opposed to the idea presented in the proposal, please help us by providing your reason(s) for objecting to it.__

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12. In your opinion, how useful are the low power Traffic Information/Highway Advisory Stations which operate in large metropolitan areas, usually on 1610Khz or 530Khz?
(very useful, somewhat useful, not useful at all)?_____

13. Do you know what an FM TRANSLATOR radio station is?_____

a. If so, do you ever listen to it?_____
b. In your opinion, would these translators serve the public better if they were permitted to originate their own programming during a portion of the day?_____

14. In your opinion, what organization(s) would be most opposed to the establishment of the new service described in the proposal, and why?

14. Can you think of a group, or organization who would probably like to see a service such as this established?_____

Useful, helpful, but optional:

Name:_____

Occupation:_____

Nearest town or city to where you live:_____

(lpam_2.sur)

RESEARCH SURVEY - LPAM PROPOSAL

The information gathered by this survey will be used in deciding if it is worth while to proceed with the accompanying proposal in the form of a Request For Rule Making to the FCC, or in some other form. Please study the proposal and then provide feedback using this survey questionnaire. Thank you for your time, and consideration. Your input is very much appreciated.

1. Would you be opposed or in favor of the establishment of this service in the AM band?_____

2. Do you view this new service as competition for existing broadcasters in large cities such as Austin, San Antonio, Houston, etc?_____

3. Do you personally know of a town or area in Texas where a station in this new service would be useful?_____

4. Do you feel the Society of Broadcast Engineers (SBE) is an appropriate group to use in assisting a person who would want to establish a station in this new service?_____

5. If such a service were to be authorized by the FCC, and if you met the criteria, would you consider establishing such a station?
_____

6. Do you know of someone personally who you think might be interested in setting up a station in this service, were it to be authorized?_____

7. What (General or Specific) suggestions or changes would you make to the proposal?_____
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8. If you are opposed to the idea presented in the proposal, please help us by providing your reason(s) for objecting to it._____

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9. Have you ever thought about anything similar to this idea, before you read this proposal?_____

10. In your opinion, how useful are the low power Traffic Information/Highway Advisory Stations which operate in large metropolitan areas (very useful, somewhat useful, not useful at all)?_____

11. In your opinion, how useful are FM translator stations (very useful, somewhat useful, not useful at all)?_____

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12. In your opinion, would these translators serve the public better if they were permitted to originate their own programming during a portion of the day?_____

13. In your opinion, what organization(s) would be most opposed to the establishment of this new service, and why?_____

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14. Can you think of a group, or organization who would probably like to see a service such as this established?_____

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15. Do you think the FCC would look favorably upon such a Request for Rule Making, or not? Why?_____

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Useful, helpful, but optional:

Name:_____

Occupation:_____

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